

**REMARKS**

Claims 12, 15, 17, 18, and 27-52 are currently pending. Applicant canceled claims 1, 5, 7-10, and 21-26 without prejudice or disclaimer of the subject matter of those claims. Applicant reserves the right to prosecute the subject matter of claims 1, 5, 7-10, and 21-26 in a subsequent patent application. Applicant also added new claims 31-52. The specification supports claims 31-52, for example, as set forth below:

<b>Claims</b>	<b>Support in Specification</b>
31, 32, 37-39, 42, 43, and 48-50	Page 8, lines 2-8; page 9, lines 14-23; page 12, lines 19-23; page 12, line 33 through page 13, line 2; page 14, lines 5-9; Examples; and original claims 7-9, and 17.
33, 40, 44, and 51	Page 10, ll. 17-29; Examples; and original claim 10.
34, 41, 45, and 52	Page 2, ll. 15-21; Examples; and Figure 1.
35 and 46	Page 4, line 35 through page 5, line 30; Examples; and original claims 1, 12, and 18.
36 and 47	Page 8, lines 15-29; Examples; and original claims 5 and 15.

Thus, no new matter has been added.

**OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION**

The Office provisionally rejects claims 1, 5, 7-10, and 21-26 under the judicially created doctrine of obviousness-type double patenting in light of claims 5 and 6 of copending U.S. Application No. 11/722,965. Office Action at p. 6. Without acquiescing to the rejection, Applicant canceled claims 1, 5, 7-10, and 21-26, rendering the rejection moot. Accordingly, Applicant respectfully requests that the Office withdraw this provisional obvious-type double patenting rejection.

**REJECTIONS UNDER 35 U.S.C. § 103(a)**

**A. *Wakamatsu* in View of *Castiel***

The Office rejects claims 1, 5, 7-10, 12, 15, 17, 18, and 21-26 under 35 U.S.C. § 103(a) as allegedly obvious over WO 02/41853 to *Wakamatsu et al.* ("*Wakamatsu*") in view of US 2002/0042380 to *Castiel et al.* ("*Castiel*"). Office Action at pp. 7-10. Applicant addresses this rejection with respect to claims 12, 15, 17, and 18, which are still pending.

The Office contends that *Wakamatsu* allegedly teaches an oil-in-water (OW) emulsion comprising an electrolyte, and that preferred electrolytes are adenosine monophosphates (AMP), cyclic adenosine monophosphates, salts thereof, ascorbic acid, and derivatives thereof. *Id.* at p. 7. The Office also contends that *Wakamatsu* allegedly teaches that adenylic acid derivatives have moisturizing and anti-aging effects when applied to the skin and that electrolytes can be used alone or in combination of two or more species. *Id.* at pp. 7-8.

The Office acknowledges that *Wakamatsu* does not teach compositions comprising ascorbic 2-glucoside, or that ascorbic 2-glucoside is an acceptable ascorbic acid derivative. *Id.* at p. 8. The Office also acknowledges that *Wakamatsu* does not teach a method of potentiating the anti-aging effect or skin pigmentation alleviating effect of ascorbic 2-glucoside by adding an AMP, and that *Wakamatsu* does not teach a method of retarding skin aging. *Id.* at pp. 8-9.

The Office then applies *Castiel* for its alleged teaching of vitamin C derivatives with improved stability for combating intrinsic aging of the skin. *Id.* at p. 9. According to the Office, *Castiel* lists ascorbic acid 2-glucoside as one of the preferred vitamin C

derivatives and teaches that ascorbic acid 2-glucoside is a known depigmenting agent.

*Id.*

The Office suggests that it would have been obvious to combine an AMP with an ascorbic acid derivative as allegedly taught in *Wakamatsu* wherein the derivative is ascorbic acid 2-glucoside as allegedly taught in *Castiel*. *Id.* at p 9. The Office contends that one of ordinary skill in the art would have been motivated to combine *Wakamatsu* and *Castiel* because the references allegedly teach that AMP derivatives and ascorbic acid derivatives are used for the same purpose, *i.e.*, to keep skin from aging. *Id.* In addition, the Office suggests that one of ordinary skill in the art would expect that combining AMP and ascorbyl 2-glucoside would have an additive effect. *Id.* at pp. 9-10. Applicant respectfully traverses.

This rejection is based in part on the Office's erroneous conclusion that *Castiel* "specifically" teaches ascorbyl 2-glucoside "to have an anti-aging action." *Id.* at p. 3. In fact, *Castiel* does not specifically teach that ascorbyl 2-glucoside is an anti-aging agent. Rather, *Castiel* teaches that "ascorbyl glucoside is, in particular, a useful depigmenting agent." *Castiel* at [0021]. *Castiel* also lists ascorbic acid 2-glucoside as an ascorbic acid compound that augments epidermal lipogenesis. *Id.* at [0023], [0035], and [0041]. Noticeably, however, when discussing the Office's alleged "anti-aging" effect, *Castiel* does not list ascorbyl 2-glucoside specifically. Rather, *Castiel* instructs as follows:

More generally, the ascorbic acid derivatives according to the invention may be administered . . . as agents for improving the suppleness of the skin and/or the surface appearance of the skin . . . and/or combating or preventing intrinsic aging of the skin.

*Id.* at [0045]. Thus, when referring to anti-aging properties, *Castiel* refers to a general, large class of compounds defined as ascorbic acid derivatives, not to ascorbyl 2-

glucoside specifically. *Castiel* appears to discuss ascorbyl 2-glucoside only in the context of depigmenting or lipogenesis. Indeed, if *Castiel* considered ascorbyl 2-glucoside specifically as an anti-aging agent, the reference would have pointed that out in paragraph [0045]. Accordingly, *Castiel* does not specifically teach ascorbyl 2 glucoside as an anti-aging agent, as alleged by the Office.

As discussed previously, *Wakamatsu* discloses several electrolyte components that may be combined with AMP. See Amendment dated April 30, 2008, at pp. 11-12. The Office admits that *Wakamatsu* teaches ascorbic acid as only one of several electrolytes without pointing to any of those electrolytes as more beneficial to use than another. Office Action at p. 3. *Castiel* fails to cure this deficiency in *Wakamatsu* because *Castiel* does not teach that ascorbyl 2-glucoside has anti-aging activity. Thus, even if one skilled in the art would have picked out ascorbic acid from *Wakamatsu's* long list of potential electrolytes, *Castiel* provides no reason for specifically selecting ascorbic acid 2-glucoside for use in the claimed methods of preventing aging. For at least these reasons, the instant invention would not have been obvious.

As discussed previously, the combination of *Wakamatsu* and *Castiel* fails to suggest the synergistic effects disclosed in the instant specification. See Amendment dated April 30, 2008, at p. 12. In response, the Office again contends that because *Wakamatsu* and *Castiel* allegedly disclose that ascorbyl 2-glucoside and adenosine monophosphate both have anti-aging action, "[t]he combination of ascorbyl 2-glucoside and adenosine monophosphate used for the same purpose of anti-aging action is expected to have up to an additive effect." Office Action at p. 3. Applicant respectfully disagrees for the reasons set forth above and as follows.

*Arguendo*, even if the Office were correct that the prior art taught a skin anti-aging action for both ascorbyl 2-glucoside and adenosine monophosphate, that argument does not address the fact that the two compounds act via different mechanisms. As discussed previously, AMP derivatives have a moisturizing effect and stimulate skin cell turnover whereas ascorbic acid compounds augment epidermal lipogenesis. See Amendment dated April 30, 2008, at pp. 11-12. Given the two different mechanisms, it would not have been obvious that the combination of an AMP derivative and ascorbyl 2-glucoside would produce “an additive effect,” as alleged by the Office. Moreover, even if one skilled in the art would have expected “an additive effect,” the instant specification demonstrates that the combination has a *synergistic* effect, which goes beyond a mere additive effect. See specification at p. 19, ll. 3-29, Example 1, and Figure 1. In contrast, neither *Wakamatsu* nor *Castiel* teach or suggest a synergistic effect on antiaging or retarding skin aging.

The Office attempts to dismiss the specification’s proof of this synergistic effect, by questioning the link between the improvement in skin brightness measured in Figure 1 and the antiaging element of the rejected claims. Office Action at pp. 4-5. The specification teaches, however, that the term “antiaging . . . means retarding skin aging, particularly alleviating skin pigmentation.” Specification at p. 6, ll. 19-23. Thus, Figure 1’s data on improvement of skin brightness directly relates to the “antiaging action” and “retarding skin-aging” recited in independent claims 12 and 18, respectively.

According to the Office, the specification’s evidence of synergism is not commensurate with the scope of the claims because the specification allegedly provides one example of synergy without showing that this synergy would also happen with other concentrations of AMP and ascorbyl 2-glucoside. Office Action at pp. 4-5. This

argument, however, is inconsistent with the guidance provided in the M.P.E.P.

Specifically, M.P.E.P. § 2145 instructs that:

[w]hen considering whether proffered evidence is commensurate in scope with the claimed invention, Office personnel should not require the applicant to show unexpected results over the entire range of properties possessed by a chemical compound or composition. . . . Evidence that the compound or composition possesses superior and unexpected properties in one of a spectrum of common properties can be sufficient to rebut a *prima facie* case of obviousness.

For example, a showing of unexpected results for a single member of a claimed subgenus, or a narrow portion of a claimed range would be sufficient to rebut a *prima facie* case of obviousness if a skilled artisan ‘could ascertain a trend in the exemplified data that would allow him to reasonably extend the probative value thereof.’

8<sup>th</sup> Ed., July 2008 Rev. Applicant submits that the Office has failed to provide any reason to suggest that the data presented in Figure 1 is not reflective of a trend that each of the forms of AMP listed in claims 12 and 18 potentiates the action of ascorbyl 2-glucoside. Accordingly, there is no reason to doubt that Figure 1’s evidence of a synergistic effect supports the full scope of the currently pending claims. Since *Wakamatsu* and *Castiel* fail to suggest or teach such synergistic effects, the claimed invention would not have been obvious.

In sum, the Office’s alleged basis for this obviousness rejection rests on a misinterpretation of *Wakamatsu* and *Castiel* and an improper dismissal of the specification’s proof of synergy. For at least these reasons, Applicant respectfully requests that the Office withdraw this rejection of claims 12, 15, 17, and 18 under 35 U.S.C. § 103(a).

**B. *Wakamatsu and Castiel in View of Quan***

The Office has rejected claims 27-30 as allegedly obvious over *Wakamatsu* and *Castiel* in view of U.S. 6,180,133 to Quan et al. ("*Quan*"). Office Action at pp. 10-12. Acknowledging that *Wakamatsu* and *Castiel* do not teach potentiating a skin pigmentation alleviating action, the Office points to *Quan* for allegedly teaching that aging of the skin "may be characterized by wrinkling of the skin, uneven or hyperpigmentation, loss of distensibility, and uneven texture." *Id.* at p. 11. Because *Quan* allegedly teaches that hyperpigmentation of the skin is a sign of aging, the Office concludes that it would have been obvious to potentiate a skin pigmentation alleviating effect by adding adenosine monophosphate to ascorbic acid 2-glucoside based on *Wakamatsu* and *Castiel* as applied above. *Id.* According to the Office, one of ordinary skill in the art would have been motivated to make a composition for treating aging and skin pigmentation and would have had a reasonable expectation of success "because both adenosine monophosphate and ascorbic acid 2-glucoside are taught by *Wakamatsu* . . . and *Castiel* . . . to have anti-aging action." *Id.* Applicant respectfully traverses.

As discussed above, the Office admitted that ascorbic acid is only one of several electrolytes listed in *Wakamatsu*. Moreover, *Castiel* does not specifically teach ascorbyl 2-glucoside as an anti-aging agent. Thus, the combination of *Wakamatsu* and *Castiel* fails to teach that ascorbyl 2-glucoside has anti-aging activity. In sum, the Examiner's rationale to support a reasonable expectation of success is not supported by those references. In addition, as discussed above, *Wakamatsu* and *Castiel* also fail to provide any reason to expect that combinations of ascorbyl 2-glucoside with an AMP would produce a synergistic effect as discussed above.

*Quan* fails to cure these deficiencies in *Wakamatsu* and *Castiel* because *Quan* also fails to teach that ascorbyl 2-glucoside has anti-aging activity, and also does not teach a synergistic effect on alleviating skin pigmentation or on potentiating this activity. None of the three references cited by the Office teaches these synergistic effects. Thus, none of the references cited by the Office, alone or in combination, would have rendered the instant invention obvious.

For at least these reasons, Applicant respectfully requests that the Office withdraw this rejection of claims 27-30 under 35 U.S.C. § 103(a).

### **CONCLUSION**

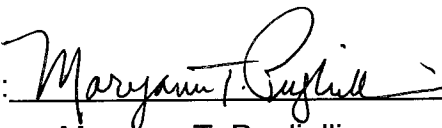
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of claims 12, 15, 17, 18, and 27-52.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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